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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/957,014	09/20/2001	Richard Francis Russell	2001-0158.02	3768

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EXAMINER

PRIETO, BEATRIZ

ART UNIT PAPER NUMBER

2142

DATE MAILED: 06/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/957,014	Applicant(s) RUSSELL ET AL.	
	Examiner Prieto Beatriz	Art Unit 2142	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 February 2005.
 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) ☐ Claim(s) _____ is/are allowed.
 6) ☒ Claim(s) 1-25 is/are rejected.
 7) ☐ Claim(s) _____ is/are objected to.
 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
 * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This communication is in response to Applicant's Response filed on 02/25/05, no claims were amended, claims 1-25 remain pending.
2. Applicant's arguments filed 02/28/05 have been fully considered but they are not persuasive (see response to argument section below).

Claim Rejections - 35 USC § 103

3. Quotation of the appropriate paragraphs of 35 U.S.C. 103 that form the basis for the rejections under this section made in this Office action may be found in previous office action.
4. Claims 1, 9-10, 17 and 25 are rejected under 35 U.S.C. §103(a) as being obvious over Buse et. al. (US 6,810,420) referred to as Buse hereafter in view of Cheshire et. al. (Cheshire), 03/1999.

Regarding claim 1, Buse teaches a scheme for allocating over a network an IP address to a device (col 3/lines 5-8), including assigning an IP address to a device (Fig. 2), the scheme including

a computer (2 or 3) and a device communicatively coupled to network (1) (Figs. 1-2, col 1/lines 38-45, col 2/lines 28-36), thereby said network providing communicative interconnection between said computer and said device;

said computer assigning said Internet Protocol IP address to said device over the network (col 3/lines 5-8, 16-19, col 2/lines 46-49, 50-54), including generating an IP address (step 36 of Fig. 3) (col 4/lines 1-3);

determining that the IP address is in use (steps 37-38 of Fig. 3) (col 3/lines 38-40);

using an address resolution protocol to determine if the IP is in use (col 3/lines 40-41);

wherein if said IP address is not in use, then assigning said IP address to said device via the network (step 34 of Fig. 3) (col 4/lines 38-40) and configuring the device with said IP address (col 3/lines 26-28); although Buse suggest using an address resolution protocol, it does not explicitly the use of a probe, nor where assigning an IP address to a device is performed by assigning the IP address to the network adapter of the device which connects the device to the network.

Cheshire discloses the configuration a new devices connected to a network by configuring the IP addressing and other stack parameters, thereof, including configuring the device's interface with and IP

address (pages 2-3); disclosing incorporating a randomly generated internet protocol address in an address resolution protocol (ARP) probe (page 3); sending said ARP probe (i.e. broadcast query) on said network for verify whether a response (by a communicatively coupled recipient) to said ARP probe indicates that said internet protocol address is in use or not (page 3); and if said internet protocol address is not in use, then assigning said internet protocol address to said network interface via said (LAN) network (page 3).

It would have been obvious to one ordinary skilled in the art at the time the invention was made given the suggestions of Buse for configuring over a network a device coupled thereto with an IP address using an address resolution protocol, to include the use of a probe and assign the IP address to the device's network interface which connects the device to the network. Each device connected to the network is uniquely identified by its connection to network, this single connection is represented by the IP address which provides access for all other devices systems connected to the network, thereby, it is obvious to one ordinary skilled in the art, that the network adapter (network interface or NIC) is assigned this IP address as exemplified in the Cheshire reference. One would be motivation to combine the references because each reference was directed to allocating an IP address to a device with minimal user intervention, one ordinary skilled in the are would be motivated to combine the teachings of the references.

Regarding claim 9, said device is a printer (Cheshire: page 5).

Regarding claim 10, said network adapter is a ("low-cost") network interface (adapter)(Cheshire: page 3).

Regarding claim 17, this claim comprised a network based ("imaging") system, including limitations on claim 1 when combined including the instructions executable on a computer to perform the method steps disclosed on the method claim 1, same rationale of rejection is applicable.

Regarding claim 25, this apparatus (system) claim is substantially the same as the method claim 10, same rationale of rejection is applicable.

5. Claims 2-6 and 18-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Buse in view of Cheshire in further view of Reed et. al. (Reed) U.S. Patent No. 6,061,739.

Regarding claim 2-5, iterating i.e. repeating said generating step, said incorporating step, said sending step and said determining step for at least a predetermined number of times (Cheshire page 3), however Cheshire does not explicitly teach wherein the predetermined number is 30;

Reed teaches a first host computer incorporating a generating an internet protocol address in a address resolution protocol probe broadcast request (col 2/lines 20-30);

sending said address resolution on an Ethernet LAN network for determining if an internet protocol address is in use (col 2/lines 20-30);

wherein the number of requests is a preset threshold (col 4/lines 19-20) and first specified time interval to wait for a response are programmable values (col 5/lines 28-33).

It would have been obvious to one ordinary skilled in the art at the time the invention was made to include means for repeating said generating step, said incorporating step, said sending step and said determining step for at least a predetermined number of times (e.g. 30), motivation would be to program the number of request issues and the time to wait for a response based on network environment factors such as network latency and its dependency on network traffic, distance and the characteristic of the communication links.

Regarding claim 6, if said number of times said generating step is performed exceeds said predetermined number then said computer fails to automatically assign said network adapter an internet protocol address (Cheshire: page 3).

Regarding claims 18-22, these apparatus (system) claims are substantially the same as the method claims 2-6 respectively, same rationale of rejection is applicable.

6. Claims 7, 11-16 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Buse in view of Cheshire in further view of Mellquist U.S. Patent No. 6,115,545.

Regarding claim 7, although prior art discloses sending an ARP probe message (i.e. "broadcasting discovery packet") on said network; and determining if said network adapter has a "valid" internet protocol address, it does not explicitly teach determining if internet protocol address is valid

Mellquist teaches that in order to configure a device with an internet protocol address it is required that a free address in the range of valid unique addresses must be selected and that a sub-net mask having a mask that must be the same on all entities across the sub-net is required (col 3/lines 11-19);

It would have been obvious to one ordinary skilled in the art at the time the invention was made to ensure that a unique valid internet address is used to configure a network device, as taught by the reference, where such validation includes verifying that an internet protocol address having the same mask as all entities on the subnet, motivation would be verify that applied address meet all requirements that ensure proper operation, to avoid major problems as suggested by Mellquist.

Regarding claim 11, this claim is substantially the same as claims 1 and 7 as discussed above, same rationale of rejection is applicable.

Regarding claim 12, wherein if said internet protocol address is in use, then further comprising the step of repeating said generating step, said incorporating step, said sending step and said determining step (Cheshire, page 3).

Regarding claims 13-16, these claims are substantially the same as claims 3-6 respectively, same rationale of rejection is applicable.

Regarding claim 23, this apparatus (system) claim is substantially the same as claim 7, same rationale of rejection is applicable.

7. Claims 8 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Buse-Cheshire in view of Mellquist in further view of Request for Comments (2563), Troll, May 1999

Regarding claim 8, however the above-mentioned prior art of record does not explicitly teach determining whether said network allows said computer to assign an internet protocol address to network devices, prior to generating step;

Troll teaches client nodes configured to be able to determine whether or not the network is being centrally administrated, allowing it determine whether or not it should assign itself a IP (link-local) address (page 2), including an Auto-configure option which allows a computer node to determine whether or not it should generate an IP address (page 3) (i.e. prior to performing the generating step).

It would have been obvious to one ordinary skilled in the art at the time the invention was made to utilize the Troll teachings to implement determining whether said network allows said computer to assign an internet protocol address to said network adapter, motivation would be to enable the flexibility

of an Auto-configure Option along with the IP address assignment that notifies the client that the network does not have an IP address to offer upon determining the absence of an DHCP server.

Regarding claims 24, this apparatus (system) claim is substantially the same as claim 8, same rationale of rejection is applicable.

Response to Arguments

8. Regarding claim 1, 9-10, 17 and 25 are rejected under 103 as being obvious over Buse in view of Cheshire, it is argued (p. 10-12) no motivation based on the references or knowledge generally available to those of ordinary skill in the art has been provided.

In response to the above-mentioned argument, applicant's interpretation of the prior art has been noted. It is prima-facie obvious to combine teachings taught by applied references that are useful for the same purpose, or intend to solve the same problem. In this case, the references are directed to minimize human/manual intervention in configuring a device with an IP address. Buse suggest using mechanisms such as ARP or ICMP echo request mechanisms as means for testing an address for conflict, i.e. determine if the address is in use, and to determine all the IP addresses devices existent in the network. Cheshire discloses that IP addresses are assigned to the network adapter of a device connected to a network. Although is not necessary that the prior art suggest the combination to achieve the same advantage or result discovered by applicant. In re Linter, 458 F.2d 1013, 173 USPQ 560 (CCPA 1972) (discussed below); In re Dillon, 919 F.2d 688, 16 USPQ2d 1897 (Fed. Cir. 1990), cert. denied, 500 U.S. 904 (1991) (discussed below).

One ordinary skilled in the art would understand that both ARP and ICMP are probe (also know as "ping") mechanisms, i.e. of request/reply nature, ICMP is well known utility command in UNIX, i.e. it is a "ping" command which uses IP/ICMP ECHO_REQUEST and ECHO_REPLY packets to probe the existing connected devices by examining packets to determine if a particular network connection is operational, as discussed by Buse this currently used to determine the used IP addresses in the network. Buse further teaches using a ARP based on a request/response (i.e. a "ping" or "probe") mechanism for obtaining the IP address assigned to replying devices in the network, i.e. the IP addresses being used in the network. Cheshire teaches that a device is configured by assigning an IP address to its network interface. One ordinary skilled in the art would also recognize that to be able to identify a device on an internetwork, each device must have assigned an address i.e., the IP address to its network adapter or

interface, by which the device is connected to the network medium, the IP address consists of a network number and a device number enabling the device to uniquely be identified in the network.

Motivation to combine the references to arrive at the claimed invention is found in the nature of the problem to be solved, specifically, because each reference was directed to allocating an IP address to a device with minimal user intervention, one ordinary skilled in the art would be motivated to combine the teachings of the references. One would further be motivated to apply the teachings of Cheshire to further enable the use of other network layer protocols beside IP seamlessly, such as NetBIOS protocol published by IBM and Microsoft, AppleTalk published by Apple Computer.

9. Regarding claim 1, 9-10, 17 and 25 are rejected under 103 as being obvious over Buse in view of Cheshire, it is argued (p. 12-13) the combination would not yield applicant's invention.

In response to the above-mentioned argument, it is noted that objective evidence which must be factually supported by an appropriate affidavit or declaration to be of probative value includes evidence that the combination does not yield applicant's invention. The test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference, because according to applicant the references obtain IP address for configuring a device, but in a different manner; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

10. Applicant's argument filed 02/28/05 have been fully considered but not found persuasive.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Prieto, B. whose telephone number is (571) 272-3902. The Examiner can normally be reached on Monday-Friday from 6:00 to 3:30 p.m. If attempts to reach the examiner by telephone are unsuccessful, the Examiner's Supervisor, Rupal Dharia can be reached on (571) 272-3880. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3800/4700.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system, status information for published application may be obtained from either Private or Public PAIR, for unpublished application Private PAIR only (see <http://pair-direct.uspto.gov> or the Electronic Business Center at 866-217-9197 (toll-free).

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
P.O. Box 1450
Alexandria, VA 22313-1450

or faxed to the Central Fax Office:

(703) 872-9306, for Official communications and entry;

Or Telephone:

(703) 306-5631 for TC 2100 Customer Service Office.

B. Prieto
TC 2100
Primary Examiner
June 15, 2005


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PRIMARY EXAMINER